From qrp-l@lehigh.edu Wed May 24 03:40:54 1995
Message-Id: <9505240334.AA06575@deneb.csustan.edu>
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: 2 HW-8's sold
Date: Tue, 23 May 1995 23:40:54 EDT

The second HW-8 has just been sold. All that I have left are the two HW-7s.
Thanks for the response. 72, Doug
KI6DS

From qrp-l@lehigh.edu Wed May 24 03:52:36 1995
Message-Id: <9505240351.AA21956@philadelphia.libertynet.org>
From: adam@philadelphia.libertynet.org (Adam O'Donnell)
Subject: A great CW op
Date: Tue, 23 May 1995 23:52:36 EDT

I got a story of one great CW operator, W3RM, Richard Moll.
(He happens to be my first radio contact and also a great elmer)

Check out the stats for '94 field day 9A, W3QV. He ran the high speed cw
tent. I'm pretty sure that he racked up 2,000 just doing high speed code.
What is remarkable is he was pounding at his bug while he was carring on
a conversation with me and eating a burger!

If anyone hears him on 30m, tell him Adam, N3RCS says hi!

--
Adam O'Donnell, N3RCS
Internet: adam@libertynet.org

My parents tell me that I just take up time and space. It's true -
I'm into relativity theory.

From qrp-l@lehigh.edu Wed May 24 00:58:29 1995
Message-Id: <01HQUTNXFKSM8X0GUR@nova.wright.edu>
From: NYOUNG@nova.wright.edu
Subject: Another sea chanty about CW
Date: Tue, 23 May 1995 20:58:29 EDT

The old sailor took the battered pipe from between
his teeth and took a straight swig out of the rum bottle.
He stuck the pipe back in his mouth, sucked on it until
it glowed again and then leaned forward, resting the
bottom of the bottle on his knee.

"When I was in the Navy," he said with a voice that sounded like far too many nights with grog in one hand and the pipe in the other, "we didn't even talk to each other. We used Morse. We didn't call it sea-double-you then, mind you." He puffed on the pipe and blew a rank cloud of foul-smelling smoke into the boot seaman's face. "You young pups wouldn't know what it was like, back then. We had sparks in the radios and there was many a watch when we could copy the shore station by watchin' the blue flames of saint elmo's fire what danced around the halyards."

Then he turned his head and stared at the boot-camper. "You wouldn't want to come below and see me etchins, now would you lad? I have a whole collection of 'em down thar." Then he put the bottle on the floor and took the youngster's knees in both hands. "I'll teach ye some see-double-yew, if yer comes along quiet." Then he laughed a hideous laugh that sounded like a parrot caught in the mouth of a rabid mongoose. The youngster blushed and flashed a weak, nervous smile.

But those of use knew in the laugh there lay a message. You just had to know see-double-ewe, eh matey?

(And now, I have not been reading _Sodomy and the Pirate Tradition_. I'm just remembering how one of my friends on watch one night [an RM-striker named Donckers] got the goats on a young sailor, fresh out of A school and C school who'd shipped over 2 extra years [this was back when a regular enlistment was 4 years] just to make E4 and spend 4 or 6 more weeks at high-speed cw school in Norfolk. As Donckers once put it "I've spent more time in the head than you have on the planet, lad." And the kid couldn't copy cw for beans. Not even at 12 wpm... which was "fleet speed" back then.)

Argh! Matey! Pass me that thar bottle o' rum. Me jernts be gettin' tired from all the chatter. And while yer at it, throw in that white horse over there....

73
Nils
WB8IJN &c

From qrp-l@lehigh.edu Tue May 23 15:55:15 1995
Message-Id: <950523115108_9121243@aol.com>

From: JCoote@aol.com
Subject: Re: Antenna for QRP???
Date: Tue, 23 May 1995 11:55:15 EDT

You were thinking of an Outbacker whip for QRP use. Whips are good if you are driving or don't have the space for a wire, but as you use lower and lower bands, that seven or eight foot helical becomes less efficient relative to a "full size" wire antenna. Helical whips with large forms and thick windings may be less aerodynamic but are more efficient.

The sacrifices with short antennas are bandwidth and efficiency. So what do some hams do when they want to operate a 3950 kHz whip on 3530? They forcefeed it through a tuner and coax, even though the whip bandwidth may be 30 Khz. (Wonder how much RF gets to the antenna in that setup?) I forget the efficiency figures from some center- vs base-loaded whips on different bands but 40, 80 and 160 meter whips can be pretty low. I remember one was 8% efficiency.

Whips aren't bad, just keep bandwidth and efficiency in mind. I think helical and center-loaded (like the large Hustler models) whips are preferable to those with loading at the bottom. You'll be changing whips a lot when you QSY, or (with the outbacker) changing taps and moving the tuning rod.

For portable, use a thin, insulated wire for the antenna. The wire can be 50 to 200 feet long. You will also need a counterpoise or radial. Use a tuner. Prune for an antenna/counterpoise length which works on all bands with your tuner. This is a "random wire" antenna. The shape may be vee, lazy vee, horizontal, vertical, square or sloper. If it's over a few wavelengths at freq then it's called a "longwire" and is directive off the ends. A counterpoise the length of the antenna, under the antenna will sometimes aid high-angle radiation on 160-80-40 meters, nice for local contacts.

Another portable antenna which takes a little more to support it is the center-fed wire. The legs can be 50' to 150' each. Feed in the center with TV 300 ohm line and a balanced tuner. If there are problems tuning on a band, change the feedline length and/or antenna length. The dimensions for the G5RV antenna seem to work well with "difficult" tuners on all ham bands since the impedances are pretty low at the feed end on most ham bands. The G5RV flat-top is usually 102' and the feeder (someone help me if I'm wrong) is 32'
The center-fed can be a vee, lazy vee, sloper or 1/2 square on it's side. If you cut this antenna so each leg is 5/8 wave at your favorite frequency, it's called an "extended double zepp" and has a few dB gain (over dipole) broadside like a dipole on that freq, plus works on other freqs with pattern variation. A vertical EDZ with 20' legs (suspended from a tree?) would be 2 X 5/8 wave on 10 meters... gain on the 3 highest HF bands, plus low-angle, and may tune as low as 7 MHz.

For portable/concealed work, I suggest insulated wire #28 to #20 depending on length, etc. Brown or grey blend in. Bare antenna wire tends to snag and may not fit under some hotel windows. Keep some nylon string handy.
 Insulators are not that important when the insulated antenna wire is tied to nylon string, and is easier to pull through trees without monster KW insulators.

Start with a good balanced tuner and don't be afraid to try center- vs end-fed, and different antenna/feeder lengths, and antenna shapes.

72, Jay
WB6AAM

From qrp-l@lehigh.edu Tue May 23 22:48:11 1995
Message-Id: <2a6.25414.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)
Subject: Antenna for QRP???
Date: Tue, 23 May 1995 18:48:11 EDT

From: brian.carling@acenet.com

Sorry to reply to the list, but you left no E-mail address (why?)

The main thing you want to do is to avoid verticals at all costs!
Use a dipole or at worst case an end-fed wire that is a 1/2
wavelength long for the lowest band you want to use. Use a tuner
with the end-fed wire. I have used a 128 ft wire with great success
on 10 through 160 meters with a tuner. I am now putting together a
G5RV dipole for all-band use. As to mobile use, there are plenty
of good ones out there, Hamstick, Hustler, Outbacker (a bot more
expensive) etc. etc.

QR>Message-ID: <9505221918.AA11796@puma.scintl.com>

QR>What's a good antenna for QRP portable/mobile use?
QR>(geez, this question must have come up a gazillion times)
QR>I'm currenly looking at one of the Outbackers, but that's
QR>a pretty big chunk of change. Opinions?

QR>Thanks-
QR> -Mike
QR>--
QR>Mike White   Chen Systems Corporation

QR>N9UXC voice:715/833-7860
QR> fax :715/833-7096

=FE SLMR 2.1a =FE Bjorn of Borg : Jimmy Conners is irrelevant

From qrp-l@lehigh.edu Wed May 24 00:54:20 1995
Message-Id: <Pine.3.89.9505232016.A543479450-0100000@utkvx.utk.edu>
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: Re: Antenna for QRP???
Date: Tue, 23 May 1995 20:54:20 EDT

Re: the suggestion of the EDZ for portable use: Although the antenna shows good gain over a dipole and is bidirectional, it should be used with care. Unlike a half-wave dipole, which has a very wide -3Db beam width in each direction, the EDZ has a beamwidth of only about 35-40 degrees, even narrower than many beams (although, again, in two directions). It would be a good antenna at my TN location, since broadside at 045 and 225 degrees, it would hit both Europe and VK/ZL-lands. However, it would also miss a lot.

Any multi-band wire, whatever the length, will change its pattern of lobes as one changes the band of operation. And the lobes will become narrower and more numerous as the antenna grows over a wavelength long. An 80-meter dipole used on 10 will have a pattern that looks like a starburst, most likely with the strongest lobes getting closer to the in-line dimension of the antenna, rather than broadside to it. In many cases, the station you want will fall between the lobes (Murphy's Law). A rotatable dipole, even by the Armstrong method, on any band that you can make a support for will generally outperform a fixed wire antenna except for stations in the fixed wires major lobes and in a rain storm (when you have to go outside to turn the dipole).

On 80 and 40, where most of our wires are less than 1/2 wavelength high, forget the idealized figure 8 patterns. The pattern is more like a big oval with most of the power going high. On 80 and 40, the low take-off angle of even a fairly low efficiency vertical will usually garner more dx than a very low (1/4 to 3/8 wavelength high) horizontal wire, while the nearer stations will tend to hear the dipole but not the vertical. THe difference washes out as the frequency increases and wires are therefore higher in trerms of wavelengths or fractions thereof.

Upshot: in planning antennas, think about height and pattern at that height as well as other practical matters, like cost, ease of

maintenance, neibhor complaints, etc. But a random wire over a tree limb
or a loaded house gutter is better than no antenna at all.

-73-
LB, W4RNL

From qrp-l@lehigh.edu Wed May 24 03:44:49 1995
Message-Id: <9505240338.AA06578@deneb.csustan.edu>
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: Bicycle Mobile
Date: Tue, 23 May 1995 23:44:49 EDT

Guys, I was bicycle mobile tonight on 75 meters. Made a contact with Vern,
W6MMA in Sacramento. He was using 100 watts, I was on the Epiphyte. We will
try QRP to QRP tonight at 10:30. Stan Goldstein has suggested that I mount
my vertical parallel to the ground to take advantage of close in contacts.
Will try it later in the week. Sure is fun to ride around the neighborhood,
with the speaker blaring, one guy in Reno talking about the weather there, and
another guy in LA says that the weather was good there today, too. The
looks that you get, they see the antenna, they hear the voices, and they shake
their heads. It is a good thing that I teach Science at the local high school.

72, Doug, KI6DS

From qrp-l@lehigh.edu Tue May 23 05:44:51 1995
Message-Id: <199505230543.WAA10849@mail.netcom.com>
From: "Stan Goldstein, N6ULU" <stan@cruzio.com>
Subject: Re: Bicycle mobile with the Epiphyte
Date: Tue, 23 May 1995 01:44:51 EDT

Doug Hendricks writes:
>
> Vern Wright, W6MMA checked in to the BC SSB QRP net last night bicycle mobile
> with his Epiphyte! Every station on the net was able to copy him, and we
> had the following stations on:
> At one point, Vern was 5 and 9. He was using a hamstick mounted on his bike
> rack. I will attempt to mount my Epiphyte on the bike tomorrow and see if
> we can make it bicycle to bicycle. We would use our Cascades, but they are
> being used for testing by Dave Meacham and John Liebenrood. So, Vern and I
> are having fun with our Epiphytes.

Doug , dont forget the old NVIS (near vertical incidence skywave) trick
of putting your vertical antenna parallel to the ground for short hop work.

--
72.25 (I still use high power when I need it)
Stan Goldstein , N6ULU

From qrp-l@lehigh.edu Tue May 23 13:24:53 1995
Message-Id: <9504238012.AA801246052@smtpgwy.windata.com>
From: Harry_Chase@smtpgwy.windata.com (Harry Chase)
Subject: CB to 12 or 10M (again)
Date: Tue, 23 May 1995 09:24:53 EDT

Using CB radios as an IF section for a transverter will work, but
there are some caveats:
     First, if you dont want to do much to the CB itself, you will
probably want one with SSB capability.   This will allow it to be used
as a RX (for SSB and CW) as well as a TX. --No, it isnt the best thing
to use to receive CW on a crowded band, but it might make the project
a lot cheaper if you dont already have a good RX.

     In any case you may have to do some circuit mods to the TX keying
circuits to make it do "proper" CW.   The mike key line in some radios
I have had produces pops and clicks and other odd effects as the
carrier first comes up.

     Also, the use of the 27 MHz band as an IF frequency could cause
you some grief from QRM -- depending on where you live, there may be
enough local CB'ers around to be easily heard on your radio even when
its antenna connection is cabled to the transverter.   This is
usually obvious when the transverter in use is for the 1296MHz band -
the activity level is low and there isnt much ragchewing going on;
but when transverting to another low band, an ongoing CB conversation
could be mistaken for activity on your band (unless you are hearing
"breaker-breaker-19, this here's the blue banana!!" ;-)...
     In any case it would add unwanted QRM.

     But anyway, by all means use those radios for something! - I see
them as low as $5 at flea markets, and even the SSB units have been
seen at $25 ...

Harry
WA1VVH

From qrp-l@lehigh.edu Tue May 23 16:56:46 1995
Message-Id: <801219645.AA01939@hamlink.mn.org>
From: CLATON.CADMUS@hamlink.mn.org (CLATON CADMUS)
Subject: CB TO 12 OR 10M (AGAIN)
Date: Tue, 23 May 1995 12:56:46 EDT

Hello all, Jeff wrote:

JE>Has anyone seen a design specifically for 10, 12, or even 15M?
  >Our local RS store is selling 40 channel CBs for $20; these are
  >(next to) impossible to convert internally. Seems a waste not
  >to do *something* with one of these pups.

Let's see hmmmm, nice case, SO-239, final transistor, knobs, pots, probably a good meter, various resistors, caps, a crystal or two and some more transistors and a couple IC. I'd say that's pretty good for $20. Just might have to get one of these, hope they have them at my local RS.

73 de Claton Cadmus, KA0GKC

| FIDOnet= Claton Cadmus 1:282./100 |
| INTERnet= Claton.Cadmus@hamlink.mn.org |
| PACKETnet= KA0GKC@WB0GDB.#STP.MN.USA.NA |
 ----

 * SLMR 2.1a * I'm insufficiently knowledgable on too many subjects.

---NoSnail v1.17
****
HAM>link< RBBS - Serving the Amateur Radio Community Since 1983

- 612/HAM-0000 v.34   Ham Radio Spoken Here!!
- 612/HAM-1010 v.32b   Reply to sender @ hamlink.mn.org
****

From qrp-l@lehigh.edu Tue May 23 18:46:21 1995
Message-Id: <950523144227_9437752@aol.com>
From: JCoote@aol.com

Subject: Re: CB to 12 or 10M (again)
Date: Tue, 23 May 1995 14:46:21 EDT

Hi all. A few comments on CB conversions:

Some years ago someone figured out a channelization scheme for 40-channel AM CB conversions. I think they wound up in the high 28 Mhz, or low 29 Mhz portion of the 10 meter ham band. The problem is when you convert channelized stuff, you're more likely to find fellow AM-QRP'ers if the conversions follow the same channels. I don't know if anyone is still doing this or not... seemed like a good idea then. Perhaps someone can post the old lists of CB-to-ham 28 Mhz SSB and 29 MHz AM "channels"?

I think it would be important to use some kind of channelization scheme for CB conversions- so that my channel 1 is the same FREQUENCY and your channel 1, etc. We'd get better results with SSB or AM nets if the channels in our conversions lined up.

There may still be a company called CBC or CBC International which will convert CB equipment to the ham bands. CBC used to advertise in QST and some ham mags. Around 10 years ago, I had them convert a Cobra 146 GTL (AM-SSB) to 40 channels in the 10 meter band. Their conversion included changing the RIT (CB'ers call them clarifiers) into a VFO of sorts. I was a little worried about that part of the conversion as I had a few reports that my transmit and receiver frequencies did not track each other. The rest of the conversion worked well, but if I had it to do over again I would forget about the XIT-VFO conversion, and leave the RIT as-is.

In the QRP Quarterly, January 1995, there was an article about converting the Uniden HR-2600 (a 28-30 MHz SSB-AM-FM-CW 25-watter) to QRP as well as the 12 meter band. Though not exactly a CB, the HR-2600 is a lower-cost ham transceiver. A company called Chipswitch, 4773 Sonoma Hwy Suite 102, Santa Rosa, CA 95409-4269.. 1-707-539-0512 sells or does modifications on this radio. May be a good way to go for a low-cost 10-12 meter allmode QRP rig?

72, Jay
WB6AAM
jcoote@aol.com

From qrp-l@lehigh.edu Tue May 23 19:08:32 1995
Message-Id: <199505231907.MAA02154@vr1000.West.Sun.COM>
From: myers@bigboy73.west.sun.com (Dana Myers)
Subject: Re: CB to 12 or 10M (again)
Date: Tue, 23 May 1995 15:08:32 EDT

> From: jeffrey@math.hawaii.edu (Jeffrey Herman)
> Date: Mon, 22 May 1995 23:30:39 EDT
>
> QRP Gang,
> Once a year or so someone (such as myself) starts a cb-to-hamband
> thread. This year how about discussing a transverter, using a cb
> rig as an IF (just for xmt-only - we've already got rcvrs).

Hey, if you can use one box for both the receiver and exciter
at the IF, why not?

> Has anyone seen a design specifically for 10, 12, or even 15M?
> Our local RS store is selling 40 channel CBs for $20; these are
> (next to) impossible to convert internally. Seems a waste not
> to do *something* with one of these pups.

What are you trying to do with these radios internally? I have a
Midland AM radio I bought for something like $35 (brand new, in the
box, complete with a schematic). The frequency control uses a single
chip synthesizer, with the channel selector knob generating a digital
address to the PLL chip. Though I haven't looked it up, I'm fairly
certain the PLL chip uses a ROM to convert the channel address to the a
PLL loop divider constant, and the ROM contains invalid values (i.e.,
loop won't lock up) for invalid channel addresses. At first glance,
this radio doesn't look too modifiable.

Well, understanding how ICs work comes in handy once in a while ;-),
and it looks to me like the most flexible way to "convert" this radio
is to replace the original PLL chip with a general purpose part capable
of operation to 30MHz (or more, depending on how much you modify the
radio; more on this later). One such part is the Motorola MC145170, a
very nice PLL, usable to at least 160MHz and available for something
like $7 in small quantities. I got 10 of them for $7/ea from
Hamilton/Hallmark a while back.

This chip is serially programmed with 5V data, using three pins. The
reference divider, loop divider and a control register are
programmable. Though it is a little bit of a hassle to deal with the
serial data compared to just wiring up DIP switches like with a
parallel programmed part, the serial input is considerably better for
processor control. I wrote a short program for a PC that programs the
PLL using several pins from the parallel port; alternatively, you could
use any embedded microcontroller (the PIC chips are especially
attractive for this). Another approach, possibly the best compromise
for a specific application, is to build a state machine with an EPROM
and counter to generate the programming signals; the advantage to this

is that you could provide for receive/transmit PLL switching quite easily.

Anyway, to use a general purpose PLL, you need to design a loop filter. Odds are that the original PLL chips uses a phase detector identical to the single ended detector on the MC145170, so you might be able to use the original loop filter. However, in transverter duty you may want to run the PLL at a higher reference frequency than the 10KHz the original part uses (which can give you decreased lock up time and decreased reference frequency sidebands on the VCO output). In any case, you should measure the VCO gain (a frequency counter and variable voltage source to tune the VCO are useful) across the range you intend to use. The Midland radio I have uses a transistor to switch in and out a capacitor to deal with the IF offset; during receive, the VCO runs at 37.x MHz, during transmit it runs at 27.x MHz. By the way, avoid the urge to make the VCO unnecessarily wide range; this will generally result in increased phase noise. Anyway, if you are going to switch the PLL between transmit and receive, be sure to characterize the VCO at both frequency ranges. In particular, you want the VCO to have approximately the same gain (i.e., change in frequency vs control voltage). Actually, an ideal situation is to tailor the VCO gain so that it counteracts the loop divider "gain" when changing from one range to another, but this is an exercise for the interested student :-).

Many radios I've seen use a 10.24MHz crystal for the PLL reference base, and also use this 10.24 MHz signal as the 2nd LO (from 10.695MHz to 455KHz). So, I'd suggest using the same rock and not changing the configuration. Afterall, using a general purpose PLL means you can select your own reference divider value. 1024 gives the original 10KHz channel spacing, but you might use a smaller value for a higher reference.

I won't go into details of PLL loop filter design here; the Motorola Communications Data Book, DL136/D, contains several very useful "classic" app notes and article reprints, and there are some very good books out there; the Motorola data sheets have bibliographies...

Evan at $40 for a new radio, the CB rigs are a pretty good deal. With redesign of the front end filter and transmitter inter-stage and PA matching circuits, you may be able to move the radio quite a bit in frequency.

Summary: if you replace the PLL with a general purpose PLL and redesign the loop filter as required, you can move the radio quite in terms of frequency. Using a computer or embedded processor has the potential of precise control, but an EPROM state machine can be used to program the PLL in a turn-key application.

From qrp-l@lehigh.edu Tue May 23 20:18:17 1995
Message-Id: <01HQUHUAMXHUHTRWYV@ADMIN.Rose-Hulman.EDU>
From: David Moody <MOODY@admin.rose-hulman.edu>
Subject: Re: CB to 12 or 10M (again)
Date: Tue, 23 May 1995 16:18:17 EDT

[...bandwidth saver invoked...]
>conversions follow the same channels. I don't know if anyone is still
doing
>this or not... seemed like a good idea then. Perhaps someone can post the
>old lists of CB-to-ham 28 Mhz SSB and 29 MHz AM "channels"?
>
>I think it would be important to use some kind of channelization scheme for
>CB conversions- so that my channel 1 is the same FREQUENCY and your channel
>1, etc. We'd get better results with SSB or AM nets if the channels in our
>conversions lined up.

There were two channel standards for CB to 10m conversions that were fairly
popular. One was "+2MHz" and the other was based at 29.0MHz

CB	Chan	+2MHz	29.0MHz	
1	26.965	28.965	29.000	
2	26.975	28.975	29.010	
3	26.985	28.985	29.020	
4	27.005	29.005	29.040	Note the hole here...
5	27.015	29.015	29.050	
6	27.025	29.025	29.060	
7	27.035	29.035	29.070	
8	27.055	29.055	29.090	Note the hole here...
9	27.065	29.065	29.100	
10	27.075	29.075	29.110	
11	27.085	29.085	29.120	
12	27.105	29.105	29.140	Note the hole here...
13	27.115	29.115	29.150	
14	27.125	29.125	29.160	
15	27.135	29.135	29.170	
16	27.155	29.155	29.190	Note the hole here...

17	27.165	29.165	29.200	
18	27.175	29.175	29.210	
19	27.185	29.185	29.220	
20	27.205	29.205	29.240	Note the hole here...
21	27.215	29.215	29.250	
22	27.225	29.225	29.260	
23	27.255	29.255	29.290	Note the frequency jump and
24	27.235	29.235	29.270	out of order frequencies.
25	27.245	29.245	29.280	in this range of channels.
26	27.265	29.265	29.290	
27	27.275	29.275	29.300	
28	27.285	29.285	29.310	
29	27.295	29.295	29.320	
30	27.305	29.305	29.330	
31	27.315	29.315	29.340	
32	27.325	29.325	29.350	
33	27.335	29.335	29.360	
34	27.345	29.345	29.370	
35	27.355	29.355	29.380	
36	27.365	29.365	29.390	
37	27.375	29.375	29.400	
38	27.385	29.385	29.410	
39	27.395	29.395	29.420	
40	27.405	29.405	29.430	

Either of these mods is done simply by recalculating the mixing frequency and changing the crystal, and then retuning everything. Another popular mod for CBers is to get the extra channels available from the PLL and using them. These also can be done with a converted CB to get more frequencies in the 10m band.

Historical note: The reason for the frequency holes at 26.995, 27.045, 27.095, 27.145, and 27.195 are that these are radio control frequencies. The strange ordering of 23,24,25,26 comes from compatibility with the old 23 channel CBs. When they got the 40 channel allocation 27.235, and 27.245 went to the CB and they needed to put it back into the channels in an orderly fashion. Since there were still many 23 channel units out they had to make it as simple as possible, and this was the result.

Boy, was that fun. No, I am not a CBer, but I do own one ;) The list of frequencies comes from the long list of useless trivia that clogs my brain. ;-) :-)

72, David Moody, KD8NY, C'mon Field Day

David A. Moody | E-mail: David.Moody@Rose-Hulman.edu
Admin. Programmer/Analyst | Finger: mgrdam@crux.Rose-Hulman.edu
Rose-Hulman Inst. of Tech. | Amateur Call: KD8NY (CW QRP) ex-WB9MMD
Terre Haute, IN USA 47803 | (VMS Rules!!! (but RSTS was fun.))
Wk Ph: 812.877.8183 |

Any facts expressed within belong to everybody.
Any opinions expressed within are my own and are not
necessarily the same as my employer, family, friends, etc.
It is up to you to know the difference.

From qrp-l@lehigh.edu Tue May 23 15:59:26 1995
Message-Id: <n1410895883.65863@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: Cure for 2M qrp intermod
Date: Tue, 23 May 1995 11:59:26 EDT

Hello Daniel,
Stuart K5KVH, ex 9M2SM here.

Perhaps cure is too strong a description, but for that intermod I would make a helical coil resonator tuned to the IM frequency, or center of that band, and insert it in your feed line with a T connector. An HCR, upon which I have some patent disclosures for similar applications, is a high Q, air wound coil with one end going to the center of the antenna coax, and the other end of the coil goes to a capacitor to the shield ground to tune the circuit exactly to the interference and notch it out. The coil and capacitor should be shielded, and the shield at two Meters can be an old nickle plated tube shield so that you can wind a coil about half its diameter. Turns would be spaced, and with a cap, the whole thing just needs to get close, as you tune it precisely with the cap. It is quite a narrow notch, so it may take several iterations to adjust. The original work was written up by two fellows in the American "Proceedings of the IEEE", in the late 50's I believe, forgive me for not having the reference at hand. I think McAulpine or something like that was one.

The formulas for applications are in past issues of the ITT Radio Handbook, which after International Telephone and Telegraph ceased publication, was carried on by Sams Publishers, I believe. Many Engineering Libraries have it.

OQRP: This is not JUST a VHF device; while at SWRI in San Antonio, I was involved with making one for 10 M Hz and installing it as an RF choke device with a tubing coil in it. Conductors to be decoupled were brought out the core of the tubing. Thus if some 30M QRP'er lives next to WWV, one might consider

this as a way to notch a HF, (an extreme case, of course.) At 10, I think we had no more than an 8 inch coil.

72!
rohre@arlut.utexas.edu

From qrp-l@lehigh.edu Tue May 23 18:35:02 1995
Message-Id: <9505231833.AA00484@kahuna.math.hawaii.edu>
From: jeffrey@math.hawaii.edu (Jeffrey Herman)
Subject: Re: Cure for 2M qrp intermod
Date: Tue, 23 May 1995 14:35:02 EDT

The ARRL Handbook, the ARRL VHF Manual, and the ARRL FM and Repeater Manual give complete details in making a helical resonator (bandpass variety, not the bandstop version).

Jeff NH6IL

From qrp-l@lehigh.edu Tue May 23 15:29:06 1995
Message-Id: <9505231427.AA07837@dora.auc.trw.com>
From: bhickey@auc.trw.com (Bill Hickey)
Subject: CW Speed Building
Date: Tue, 23 May 1995 11:29:06 EDT

Dave Kelly (AA7TQ) made some VERY good points on how to learn Morse.

I can vouch that his recommendations work. I can also vouch that some of the traps he mentioned don't. Been there, done them both.

When I was a fledgling ham, I had just passed the newly restored Advanced after many years as a lowly "Technician" (back when it was a mail-order exam). I was also in the Navy Reserves and was supposed to be learning how to be a "Radioman". When I walked into the comm center, the Chief asked me if I could already take code; I said yes. He also asked me if I could type; I said yes. He proceeded to set me down to copy NSS press at 18 wpm. Although my proficiency was 16-18 wpm at that point, I could only get a character or two onto the paper.

He walked over and promptly proceeded to put a headphone to one ear, and typed out the NSS copy ONE-FINGERED by the "hunt-and-peck" method without dropping a single letter. Within 2 weeks, I was running perfect copy at over 20wpm with a typewriter (and THAT is a totally different skill than

using a pencil) because I wasn't about to let that guy embarrass me like that again!

The only effective way to gain speed is to aim higher than you want/need, then practice, practice, practice.

73,
Bill
WA5FXE
Boulder, CO

From qrp-l@lehigh.edu Tue May 23 15:55:42 1995
Message-Id: <950523115114_9121323@aol.com>
From: JCoote@aol.com
Subject: Re: CW Speed Building
Date: Tue, 23 May 1995 11:55:42 EDT

I agree with your pointer about never relying on a crutch to learn code!

A few friends and co-workers tried some commercial crutch tapes and software (I will not name the product). When it came time to do some real code, these poor folk's minds were BOGGLED because of the extra mental "step" of translating sound into "catch it catch it" or "dog did it" and then to letters.   These poor people were probably traumatized for life and will probably become bitter 2-meter repeater users for the remainder of their ham careers :-(

If you use tapes and software, forget the toys and gimmicks. The tones you listen to should be SMOOTH sinewave, 600-800 Hz if on tape or adjustable on computer software.   Software should have adjustable speed, spacing, ratio and weighting. "Supermorse" is one good CW practice program.

When you start sending, get a GOOD key... Nye Viking, J-38 or something with bearings, adjustable gap and tension. I always suggest a navy knob and a good base. The copying comes first, but sending should also be pleasurable. Don't use a buzzer or squarewave oscillator, get a sinewave oscillator with tone and volume controls.   Many people set the key gap too wide and use too much spring tension and end up pounding the key all over the desk top. Try a lighter tension and a gap equal to a few pieces of paper, you'll get used to it and your hand will get less tired.

A few opinions on learning and enjoying...

72, Jay

WB6AAM

From qrp-l@lehigh.edu Tue May 23 16:11:01 1995
Message-Id: <199505231607.JAA25620@mailhost.primenet.com>
From: aa7tq@primenet.com (Dave Kelley)
Subject: Re: CW Speed Building
Date: Tue, 23 May 1995 12:11:01 EDT

Thanks for the input. I really don't touch on the pleasures of a good key.
Even keyers come in good, better, best. I still drag my BUG out from time
to time to enjoy sending with it. (I'm not sure the other end enjoys it
though...<grin>)

Anyhow, great points and if you don't mind I will include some of the ideas
in the next draft.

Thanks and 7.3

Dave

At 11:51 AM 5/23/95 -0400, JCoote@aol.com wrote:
>I agree with your pointer about never relying on a crutch to learn code!
>
>A few friends and co-workers tried some commercial crutch tapes and software
>(I will not name the product). When it came time to do some real code, these
>poor folk's minds were BOGGLED because of the extra mental "step" of
>translating sound into "catch it catch it" or "dog did it" and then to
>letters.   These poor people were probably traumatized for life and will
>probably become bitter 2-meter repeater users for the remainder of their ham
>careers :-(
>
>If you use tapes and software, forget the toys and gimmicks. The tones you
>listen to should be SMOOTH sinewave, 600-800 Hz if on tape or adjustable on
>computer software.   Software should have adjustable speed, spacing, ratio
>and weighting. "Supermorse" is one good CW practice program.
>
>When you start sending, get a GOOD key... Nye Viking, J-38 or something with
>bearings, adjustable gap and tension. I always suggest a navy knob and a
>good base. The copying comes first, but sending should also be pleasurable.
> Don't use a buzzer or squarewave oscillator, get a sinewave oscillator with
>tone and volume controls.   Many people set the key gap too wide and use too
>much spring tension and end up pounding the key all over the desk top. Try a
>lighter tension and a gap equal to a few pieces of paper, you'll get used to
>it and your hand will get less tired.
>

>A few opinions on learning and enjoying...
>
>72, Jay
>WB6AAM
>
>

From qrp-l@lehigh.edu Tue May 23 17:09:23 1995
Message-Id: <"15925 Tue May 23 13:04:48 1995"@bnr.ca>
From: "michael (w.m.) babineau" <babineau@bnr.ca>
Subject: re:CW Speed Building
Date: Tue, 23 May 1995 13:09:23 EDT

In message "CW Speed Building", bhickey@auc.trw.com writes:

> When I walked into the comm center, the Chief
> asked me if I could already take code; I said yes. He also asked me if I
> could type; I said yes. He proceeded to set me down to copy NSS press at
> 18 wpm. Although my proficiency was 16-18 wpm at that point, I could
> only get a character or two onto the paper.
>

This is very interesting. I had/have a similar mental block in that when I
learned to copy code, I of course copied a single character at a time by
printing. As my code speed increased to around 20wpm I realized that I
could no longer keep up by printing so I thought, no problem I'll just
listen then write down the words. Wrong!! I can't write and copy code at the
same time!! I can print just fine, but writing escapes me. I never
did try typing. As it turns out it was a good incentive to learn to copy
in my head.

I also agree with the suggestion of starting out copying letters send at
a higher speed than the overall message. This was a technique which I
believe was pioneered by Russ Farnsworth. I learned code using this method
from a set of LP Records that I bought from Heathkit in the late 70's.
If I remember correctly, his program started out at 5wpm but the individual
characters sounded as they would at 15wpm. I had no trouble increasing
my code speed with a bit of practice.

Michael VE3WMB

From qrp-l@lehigh.edu Tue May 23 22:49:46 1995
Message-Id: <2a6.25417.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)
Subject: CW Speed Building
Date: Tue, 23 May 1995 18:49:46 EDT

From: brian.carling@acenet.com

I like the change in the FROM and REPLY TO address displays,
BUT, now there is no indication that these are coming in from QRP-L
at my location. I read several other lists, and it is annoying to not
know which list they are posted on. I read on a BBS so that is probably
where the limitation arises.
I will try to ask my SYSOP to add the other information here.

AA>Message-ID: <199505222347.QAA02262@mailhost.primenet.com>

AA>One day I sat down and came up with this little ditty (pun?) about h=
ow to
AA>learn the code. I'm no expert, but I've been teaching for a long ti=
me and
AA>working CW with joy for just under 30 years. Since I wrote this I d=
id some
AA>real life trials, on some real life people. It worked...and worked =
well.
AA>In the same class I had people pass the 5 wpm and 13 wpm because we =
were
AA>shooting for 20, not 5.

AA>Anyhow, I hope I'm not doing something wrong here by posting this, b=
ut if
AA>you know someone who is working on their code you might pass it on a=
s "one
AA>way" to do it.

AA>7.3
AA>Dave

AA>"From No Code to Know Code"
AA>by Dave Kelley, AA7TQ

AA>DRAFT COPY

AA>I'm not going to start out by telling you that learning the code is =
fun.
AA>I'm not going to tell you there is an easy way to learn it. But, li=

ke
AA>just about everything, there is a right way and a wrong way to do
AA>something. I hope to give you some ideas that should help you learn=
 the
AA>code and get all the way to the top. Like many, you may learn to lo=
ve
AA>the CW mode. Don't believe it can happen? Listen to the CW bands o=
n
AA>any day and compare the number of QSOs going on compared with the p=
hone
AA>band. You probably will find more people chirping than yapping.

AA>Here are some points to think about. People all learn differently s=
o
AA>use what you think will work for you and discard or modify these ide=
as
AA>for your own use.

AA>* Don't learn it at a slow rate, even from the start.
AA>If your goal is to get to 20, or even 13 words per minute set your
AA>learning speed accordingly. For example, if your goal is 20 then tr=
y to
AA>copy with a character speed of 22 wpm with a long space between
AA>characters.   As you start to recognize the letters quicker you can
AA>simply close the spacing between the letters until your at full spee=
d.
AA>This allows you to get used to the sound of the characters at this
AA>speed. Hearing code at a slower speed later will be easy to recogni=
ze
AA>opposed to the other way around.

AA>* Listen to the SOUND of the characters.
AA>Learning code at a higher speed helps you avoid one of the biggest
AA>problems we all have when starting out in code. We tend to "count" =
dits
AA>and dahs or visualize the letter on paper with the code next to it (=
A .-
AA>). If you learn code by doing any counting, memorizing code charts,=
 or
AA>even thinking about the pattern of the sound you will find those
AA>'plateaus' you may have heard about. These are blocks that you'll f=
ind
AA>at about 10 and 18 wpm. Our minds can do these conversions only so
AA>fast.

AA>By learning the sounds of the character we can learn to copy almost
AA>automatically. If I were to recite letters to you in English you wo=
uld

AA>be able to write them down without thinking about how to form the le=
tter
AA>or even what it looks like. You just know that when I say "Double-U=
"
AA>you would write W on the page. Code should be learned the same way.=
  No
AA>conscious conversion processes in between.

AA>* NEVER use crutches!
AA>In keeping with the above paragraph you should stay away from crutch=
es.
AA>One that comes to mind that is the worst way to learn code is the
AA>Sound=3DCatchy Phrase=3DLetter technique. This is were you learn li=
ttle
AA>rhymes that go with each letter. The letter C is "Catch-it Catch-it=
",
AA>like the sound of the C. THIS IS A VERY BAD way to learn the code. =
 Can
AA>you imagine using this to copy at 20 wpm? You'd hear the sound, hav=
e to
AA>think of the phrase, then think of what letter it was from that phra=
se
AA>and then write it down. Ooops, you just missed 5 letters while you =
were
AA>doing all that mental converting. Chances are, you'd never make it =
to
AA>20 wpm using that crutch. Frankly, I think learning it simply by th=
e
AA>sound of the letter would be easier than learning little rhymes anyh=
ow.

AA>* Learn to drop the pencil from time to time.
AA>Some of us can't write at 20 wpm. I can, but my hand gets mighty ti=
red
AA>in a long QSO. So, drop that pencil and close your eyes. Listen to=
 the
AA>letters and let them form behind your eyelids instead. You'll start
AA>seeing whole words there. Then you'll get the hang of hearing compl=
ete
AA>sentences without forgetting letters as fast as you hear them. Thin=
k
AA>about this. The only conversion we have really talked about (that's
AA>okay) is from hearing the sound to writing it down. If we take away=
 the
AA>part about forming the letter on paper our brain has even more time =
to
AA>just listen and comprehend the code...leaving it time to remember th=
e

AA>order of the letters. People who have learning this can listen to t=
he
AA>CW band as easily as they can the phone band. As you tune around yo=
u'll
AA>hear what people are saying very clearly.

AA>Without the pencil pushing to get in the way your code speed will ju=
mp
AA>several notches too. You might find yourself listening to a couple =
guys
AA>or gals talking at 30-35 wpm and copying without much effort. You s=
ure
AA>couldn't write it that fast. So, drop that pencil and just listen f=
or a
AA>while.

AA>* Taking the test.
AA>Being a VE for many years I have seen everything in our code session=
s.
AA>Stress is always present (no matter how many jokes I tell first) and
AA>people usually react negatively to stress. You should have a skill
AA>level of 2-5 wpm over the actual test you are taking. Your comfort
AA>level will be better. If you have heart problems or get sick under
AA>extreme stress let the VEs know this so they can work with you.

AA>The code tests are nothing more than a sample of QSOs like you might
AA>hear on the air. It sends call letters and information about things
AA>like RST, QTH, name, rig, weather and other standard chat stuff.
AA>Knowing how we talk on the air can be a big advantage so if you have=
 a
AA>way to receive HF or even better, if you can get on the air by all m=
eans
AA>do it.

AA>When taking the test You might want to decide if you want to go for =
the
AA>100% copy. This might be good for some people. If you copy on pape=
r
AA>and know you are doing well from the computer, tapes or on the air t=
hen
AA>this would be good. If you have learned with the 'pencil down' meth=
od
AA>you might want to just take notes. When you hear key words write th=
em
AA>down. He has to QRT for lunch, his antenna is a dipole, or he has a
AA>schedule with his mother in Botswana. You might write lunch, dipole=
,
AA>mother, Botswana. You can then answer the questions on the multi-ch=

oice
AA>sheet rather easily. This is not cheating in any sense of the word
AA>either. The idea of knowing code at a particular speed means you ca=
n
AA>comprehend what the information is..and we are doing that here.

AA>Well, there you have it. I have known many people over the years wh=
o
AA>have used these key ideas to gain a mastery over the Morse code. Mo=
st
AA>of them you can meet...the next time your on the air...in the CW ban=
ds.
AA>Enjoy.
AA>aa7tq@primenet.com (pager 602-664-0773) http://www.primenet.com/~aa7=
tq
AA>"For I dipt into the future, far as human eye could see;
AA>Saw the Vision of the World, and all the wonder that would be..."
AA>Alfred Tennyson (and mast-head of the Star Ship Voyager)

 =FE SLMR 2.1a =FE "There's one assimilated every minute." - P.T. Borg

From qrp-l@lehigh.edu Tue May 23 23:07:07 1995
Message-Id: <95May23.190606edt.14522-2+118@hooch.CC.Lehigh.EDU>
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: Re: CW Speed Building
Date: Tue, 23 May 1995 19:07:07 EDT

>
> From: brian.carling@acenet.com
>
> I like the change in the FROM and REPLY TO address displays,
> BUT, now there is no indication that these are coming in from QRP-L
> at my location. I read several other lists, and it is annoying to not
> know which list they are posted on. I read on a BBS so that is probably
> where the limitation arises.
> I will try to ask my SYSOP to add the other information here.

Brian,

  Good thing nobody's ever happy, or I'd be out of a job :-)
Due to popular request, we plan to add the list name to the Subject:
line, like so:

Subject: [QRP-L] Your subject goes here

While you're talking to your SYSOP, ask him/her to remove the "From: brian.carling@acenet.com" from the beginning of your messages, or move it to the bottom of your message. The list server can reject commands sent to the list address (like your RECIPIENTS QRP-L command :-) but it only checks the first line of the message.

/jim

From qrp-l@lehigh.edu Wed May 24 00:35:56 1995
Message-Id: <199505240035.RAA07473@usr4.primenet.com>
From: Richard Hall <n7xnl@primenet.com>
Subject: Re: CW Suggestions
Date: Tue, 23 May 1995 20:35:56 EDT

In-Reply-To: <9505231427.AA07837@dora.auc.trw.com> from "Bill Hickey" at May 23, 95 11:29:03 am
X-Mailer: ELM [version 2.4 PL23]
Content-Type: text
Content-Length: 1234

> He walked over and promptly proceeded to put a headphone to one ear, and
> typed out the NSS copy ONE-FINGERED by the "hunt-and-peck" method without
> dropping a single letter. Within 2 weeks, I was running perfect copy at
> over 20wpm with a typewriter (and THAT is a totally different skill than
> using a pencil) because I wasn't about to let that guy embarrass me like
> that again!
>

(please excuse my previous attempt at responding to this msg, I am just getting used to the editor and the list-server, and suspect I just resent Bill's msg intact)

While we are mentioning living legends, I thought I'd mention the Radioman Chief I worked with back in the 1960's afloat in the USN. I was an Electronics Technician working as a Radioman since the only RM's we had on the ship were the chief and a third class RM. The chief astounded us all one night by copying TWO messages, using stereo earphones, a pencil and pad at his right hand and a typewriter (hunt and peck) at his left hand. I don't know the speeds involved, as I knew very little of code at the time, but I still marvel at some of the 'old timers'. His copy was also perfect, by the way, and was five letter code groups, not normal text.

 73 de Rich, n7xnl@primenet.com
>
>

From qrp-l@lehigh.edu Tue May 23 15:55:04 1995
Message-Id: <199505231553.KAA06800@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: Daily Digests and ftp
Date: Tue, 23 May 1995 11:55:04 EDT

Gang,

Just to let everyone know:

in order to receive the daily digests, send the following to
LISTSERV@LEHIGH.EDU within the body of the message

SET QRP-L MAIL DIGEST

Later, if you find that you just gotta get the information in a hurry again,
the you send to the SAME address

SET QRP-L MAIL ACK

Here are some directories and what is currently in them at FTP.LEHIGH.EDU

```
pub/listserv/qrp-l/Archives       Archives of this server, LEHIGH.EDU
pub/listserv/qrp-l/Archives-old   Archives of THINK.COM and NETCOM.COM
pub/listserv/qrp-l/fcc            ASCII copies of FCC Radio Amateur Examinations
                                     advanced.new
                                     advanced.txt
                                     extra.txt
                                     general.txt
                                     novice.txt
                                     tech.txt     .Z ext means compressed,but
                                                  if you ftp, it will go away
pub/listserv/qrp-l/forms          QRP ARCI awards forms
pub/listserv/qrp-l/rigs           nn1g20.ps - schematic of 20M NN1G PostScript
                              parts list to be placed in soon
```

--
Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-l@lehigh.edu Tue May 23 13:35:39 1995
Message-Id: <1B858F62917@daphne.rrze.uni-erlangen.de>
From: "Richard Hieber" <SZ0026@daphne.rrze.uni-erlangen.de>
Subject: FAQs & Pottenstein meeting
Date: Tue, 23 May 1995 09:35:39 EDT

Hi gang,

I just subscribed to the new list yesterday (or was it the day before?).
Anyway, the transition was smooth, and everything is going well.
I see that the return of the digest format is a big improvement, but
personally I have made friends with mail filtering and don't plan to
change. What's nice is that now there's a FTP site that has same domain
name like the listserv (LEHIGH.EDU) - which makes it easy to memorize it
- and has room for growth. I visited it to retrieve the list traffic
that I had missed and the site seemed to be not too congested. I'd like
to put my Mailing List FAQ file and the Clubs List on this site, after
updating them according to the new situation. LB has expressed similar
intentions for the Books Lists that he is working on. Chuck wrote:

> My plan is to have the FAQs in the home directory of the
> ftp site and labeled appropriately, something like FAQ.call.
> This way each file will have it's own personality and thread.

Chuck, do you really mean the home directory? I think a more appropriate
place would be /pub/listserv/qrp-l/faq, and I'd prefer a naming after
the contents, not after the call of the editor, e.g.
"FAQ.qrp-l.mailing.list", "FAQ.qrp.clubs.list" or similar (forgive the
shameless advertizing ;).

As I want to include the place of storage *into* the FAQ, could you
please tell me ASAP where you want it to have and what the name will be,
Chuck?

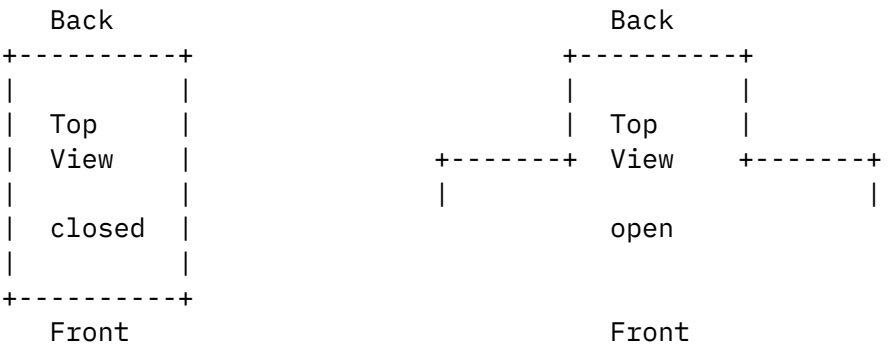
I will also have a second look at the welcome message which seems to be
copied from the one at the netcom list. It might need a bit of editing
to make it congruent. I agree with Chuck that the welcome message
shouldn't be too large ... people tend not to read large mails which
come unsolicited ;)

ObQRP: Last weekend I attended the annual meeting of the German section
of the G-QRP Club at Pottenstein which happens to be only 30 miles from

here, so I simply couldn't miss it. About 60 QRP enthusiasts were there. The meeting lasted two days, with lectures each day. First one on Saturday morning was about TRX modules, the next one about milliwatting and microwatting, with some additional comments about QRP satellite operation. After the lunch break the program continued with a portable and holiday antenna workshop, led by the known QRPer HaJo Brandt, DJ1ZB. I didn't hear anything really new (it's hard to invent a new antenna!), but I got reminded of things that I need to try out at the next occasion, like improving my RF ground by installing a net of wires under the carpet in my appartment, or like *asking* at the toy shop for a metal Slinkie (the ones that I usually see there are made from plastic ;().

On Sunday I missed the lesson from HaJo about test measurements with an spectrum analyzer, but I was promptly back, when Peter Zenker, DL2FI, reported on his experiences with the QRP+. Since so much has been written on the list about this rig it's futile to go into details. Most valuable for me was the opportunity to see one of these rare beasties with my own eyes and even fiddle with the knobs for a while. Unfortunately there was not enough time and too much interest in this rig from all sides to really operate and have a QSO. But I had a very favourable impression and I am even more determined, if possible, to get this rig.

One OM from Berlin had his QRP+ built into a small aluminum clad suitcase. I will try a little drawing:



In the left wing of the opened cover there was an external speaker and a mikrophone; on the right wing he had a light and a couple 12V power sockets (car cigarette lighter type). In the back half of the case there was the rig itself, a homebuilt tuner and a 7.5 Ah battery. There also was plenty of space for one of these cute small precision brass keyers from Schurr. I don't want to go more into detail and I also immediately had ideas for improvement (like installing solar panels for buffering). But I like the basic design so much that I will keep my eyes open for a small suitcase with such an opening mechanism. It's really like a little

transportable shack. With a small and cheap XT notebook or palmtop it would be even possible to add the digital modes (kind of important for me). One fellow jokingly commented that it looked like an altar ... There's truth to it ;-)

There's another very interesting commercial QRP rig that was introduced at this meeting, and it's really high-tech. It tunes from 20kHz to 39MHz, from 50MHz to 59.995MHz and from 140 to 150MHz. Output on SW is >5W, on the VHF bands only one milliwatt, at separate antenna connectors. The front panel, as I recall, contains only one tuning knob, an LED Display, two dip switches and about 15 to 20 pushbuttons (the waterproof ones that are shielded below a foil). It has a built-in keyer (3-90wpm in 1wpm increments), lots of memory for texts, VOX, digital S-meter, AM reception, scanning capabilities, and a few nice features more. Obviously it's controlled by a micro processor: the good ole Z80. Power consumption is 600mA in receive ;(. From all places, this rig comes from Poland! The producer is called "V-Electronics" and the name or the rig is "KW UKW TXVR digital 942" (there is also a model 941 but I don't know the difference). The dealer who was presenting this rig attached a price tag of around 1600 to 1700 DM to it (abt. 1200 USD). There is also a kit available, but with the little documentation in Polish (badly translated into German) and the complexity of the circuit I'd be very, very careful ... ;-)

Please don't ask for more details as I don't have them.

Thanks for listening and CUL!
Richard

--
Richard Hieber, DL8MFQ/AA8CP
sz0026@daphne.rrze.uni-erlangen.de

From qrp-l@lehigh.edu Tue May 23 12:11:01 1995
Message-Id: <2fc1bacc.pandora@pandora.lugs.po.my>
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.po.my>
Subject: Filters
Date: Tue, 23 May 1995 08:11:01 EDT

Yo Gang,

Can anyone here recommend me a good filter to use against 2M intermod? I've been trying to work some QRPp 2m but realized that my real problem is intermod coming from paging services around 150-154 MHz. I've been pondering a

cavity (which is probably real expensive), something Tucker sells (not sure how good), the Notch filter made by PAR etc. The regular bandpass filter is not helping at all and I am getting pretty irritated so any recommendations are welcome (reviews or advice also good).

73 de 9V1ZV Daniel

p.s. If anyone knows the price of the 2M cavity made by Sinclabs please let me know. Tks.

--

+-------------+-------------------------------------+
Daniel Wee	daniel@pandora.lugs.po.my
9V1ZV	daniel.wee@f516.n600.z6.fidonet.org
UUCP1.12k	Packet: 9V1ZV @ 9V1VS.SGP.AS --
+-------------+-------------------------------------+

From qrp-l@lehigh.edu Tue May 23 18:46:32 1995
Message-Id: <950523144507_9437796@aol.com>
From: JCoote@aol.com
Subject: Re: Filters
Date: Tue, 23 May 1995 14:46:32 EDT

I wonder if you are using a handheld on a 6 dB (or more) gain antenna? Sometimes the receivers in handhelds and some mobiles get i-mod and other problems if the antenna gain is a lot more than 2-3 dB. Some foreign manufacturers boast amazing sensitivity .001 uV or whatever (on the lab bench), but I'd rather have an old fashioned .25 or .3 uV and a tighter front end.

I also wonder if the pager transmitter is dirty and emitting spurs? In my dealings in commercial/public safety radio, I've found that less care is given to pager transmitters than base or repeater stations. Have a friend with a spectrum analyzer? Maybe they need to install a filter, ideally a sharp pass on their freq, as well as a notch on 2m.

You might try a coax stub in your antenna. Some of our RF engineer types please help out on this, but I think it's a shorted 1/4 wave stub which can be tuned to notch out the offending 154 Mhz frequency while leaving 2M alone. I don't know if the notch will be deep enough. You put a coax tee in series with the feedline with the stub out of the center of the tee.

72, Jay
WB6AAM

From qrp-l@lehigh.edu Tue May 23 19:45:37 1995
Message-Id: <9505231940.AA09429@radium.Eng.Sun.COM>
From: Raymond.Anderson@eng.sun.com (Ray Anderson)
Subject: Re: Filters
Date: Tue, 23 May 1995 15:45:37 EDT

>
> You might try a coax stub in your antenna. Some of our RF engineer types
> please help out on this, but I think it's a shorted 1/4 wave stub which can
                          ^^^
> be tuned to notch out the offending 154 Mhz frequency while leaving 2M alone.
> I don't know if the notch will be deep enough. You put a coax tee in series
> with the feedline with the stub out of the center of the tee.
>
> 72, Jay
> WB6AAM
>
>

Not sure how effective the notch induced by the 1/4 wave stub will be in
this application, however the 1/4 piece of coax needs to be OPEN circuited
not shorted on the far end. The 1/4 stub acts as an impedance inverter
hence the open on the far end is translated to a short at the 1/4 wave
resonant frequency on the near end.

72 de WB6TPU Ray

wb6tpu@radium.eng.sun.com

From qrp-l@lehigh.edu Tue May 23 19:47:20 1995
Message-Id: <9504238012.AA801268804@smtpgwy.windata.com>
From: Harry_Chase@smtpgwy.windata.com (Harry Chase)
Subject: Re: Filters
Date: Tue, 23 May 1995 15:47:20 EDT

Your observation about the hand-held radios and intermod is correct --
they all are designed to have maximum sensitivity to compensate the
tiny antenna;   but their dynamic range and 3rd order intercept point
are low because the RF circuits are designed to run on only a few mA
to conserve battery life.   This limits their large signal handling
ability.

Connecting my 220 MHz handheld to our 220 repeater site antenna quickly showed me how easily a 220 radio can hear TV, 150MHz commercial band, 460 MHz commercial, and incidentally several 220 repeaters , all at once...

As to un-maintained commercial paging transmitters, the site our club repeater *used* to be at had a forest of towers all within 100 fet of each other. A walk around the hill revealed lots of rust on towers and hardware, damaged coax cables, damaged antennas, etc. A spectrum analyzer brought to the site showed hundreds of signals and evidence of intermodulation of many of them with the video carrier of the local TV station, also on the site... The spectrum is getting to be a jungle out there.

Regarding the question about filters, a quarter-wave stub can be used in the line, connected with a T adapter. You could use a shorted stub to make a bandpass filter (quarter wave at the desired PASS frequency) *or* use an open stub, to make a notch filter. This one you center-tune at the freq. of the unwanted signal to be rejected.

The notch configuration is much sharper than the pass will be, and this may be very important to ensure that it isnt still attenuating your freq. at 146MHz while notching out 155. When the 2 frequencies are very close, say 147 and 150 MHz, you may find that a piece of coax wont tune sharply enough. They typically use large diameter coaxial cavities in this case, loop-coupled at input and output. With these, one can use a bandpass, notch, or an arrangement known as "pass/reject" where there is a sharp passband and a nearby *very* sharp notch which can be fine-tuned.

(the equivalent circuit of this resembles that for a quartz crystal, which has both a parallel and series resonant mode close together.) That 32Pf cap you use in a typical crystal oscillator is used to tune the parallel resonance to adjust the freq.

If you have worked with repeaters , you will be familiar with these cavities; they are used in the duplexers -- and, yes, they are expensive, although it is possible to "roll your own".

Harry
WA1VVH

From qrp-l@lehigh.edu Tue May 23 19:59:23 1995
Message-Id: <199505231957.MAA02759@vr1000.West.Sun.COM>

From: myers@bigboy73.west.sun.com (Dana Myers)
Subject: Re: Filters
Date: Tue, 23 May 1995 15:59:23 EDT

> From Raymond.Anderson@Eng Tue May 23 12:51:16 1995
> Originator: qrp-l@lehigh.edu
> From: Raymond.Anderson@Eng (Ray Anderson)
> To: Multiple recipients of list <qrp-l@lehigh.edu>
> Subject: Re: Filters
> X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
> X-Comment: Low Power Amateur Radio Discussion
> Date: Tue, 23 May 1995 15:45:28 EDT
>
>
> >
> > You might try a coax stub in your antenna. Some of our RF engineer types
> > please help out on this, but I think it's a shorted 1/4 wave stub which can
>   ^^^
> > be tuned to notch out the offending 154 Mhz frequency while leaving 2M alone.
> > I don't know if the notch will be deep enough. You put a coax tee in series
> > with the feedline with the stub out of the center of the tee.
> >
> > 72, Jay
> > WB6AAM
> >
> >
>
> Not sure how effective the notch induced by the 1/4 wave stub will be in
> this application, however the 1/4 piece of coax needs to be OPEN circuited
> not shorted on the far end. The 1/4 stub acts as an impedance inverter
> hence the open on the far end is translated to a short at the 1/4 wave
> resonant frequency on the near end.

You can use either an open or shorted stub; the shorted stub would be
cut to 146MHz (or so), and an open stub would be cut to 152MHz or so.
Possibly one would want to use both. Of course, the effectiveness
of the stub is going to be highly dependent on the loss of the coax;
the lower the loss, the better.

 * Dana H. Myers KK6JQ, DoD#: j | Views expressed here are   *
 * (310) 348-6043 | mine and do not necessarily   *
 * Dana.Myers@West.Sun.Com | reflect those of my employer *

From qrp-l@lehigh.edu Tue May 23 17:41:21 1995

Message-Id: <199505231740.MAA07095@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: ftp update
Date: Tue, 23 May 1995 13:41:21 EDT

Ooops. Sorry. I forgot to mention.

If you are ftp'ng say extra.txt.Z, you do a get with

get extra.txt

and leave off the .Z and you should get the uncompressed
version. If you do a get with extra.txt.Z, you will get
the compressed version and then will need to uncompress
on your end. The later allows a faster transfer to take
place.

The details are taking time to document, sorry if there
is some hicup.

dit dit
--
Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-l@lehigh.edu Tue May 23 14:23:48 1995
Message-Id: <199505231427.IAA23180@solar.ditell.com>
From: bfollett@ditell.com
Subject: Re: Half Square Antenna
Date: Tue, 23 May 1995 10:23:48 EDT

I have used the AntennasWest 20M HS antenna on vacations for a few
years now, and find it works better than a dipole or my G5RV at
similar heights---IF, you find a way to run the coax away from the
corner that does not parallel the vertical element. Best, according
to AntennasWest, is 90 degree takeaway from the antenna plane, but
then, you end up at the same height as the corner. (only when you
use it out of a second story window, for example). Otherwise, you
must take it away on a diagnal. (or of course, use Rohre's conduit
idea, but then its not so portable)

AntennasWest has a handdrawn radiation pattern comparison with a
dipole at 1/4wave height. Shows a highly idealistic low lobe off
both ends. But its only a drawing Rohre...Anyway, I find it loads
well, and seems to work well at relatively low heights...

Bob Follett WA7FCU   VOICE: 801.649.6457
2861 Estates Dr.   On-the-Road E-mail: 73457.745@Compuserve.com
Park City, UT 84060   Home Office E-mail: bfollett.ditell.com

From qrp-l@lehigh.edu Tue May 23 18:40:50 1995
Message-Id: <Pine.OSF.3.91.950523132617.26847B-100000@Gayle-Gaston.tenet.edu>
From: Al Suttles <asuttles@tenet.edu>
Subject: Hamsticks
Date: Tue, 23 May 1995 14:40:50 EDT

Fellow Kwerpeas--

Has anyone had experience using Hamsticks? I'm thinking of getting 30M
and 40M sticks as I wait for my QRP+ to arrive (hopefully by FD).

What has been your experience? They seem compact, light, adjustable...but
are they effective? Who's had some experience with them, especially with QRP?

Are they easy to assemble and adjust in the field? Will they eat half my
5 W? Do they have SO239 connectors? Do I use 50 ohm coax? Can they be
broken into two (fairly short) sections?

Al Suttles, AB5ZB
Austin, TX

From qrp-l@lehigh.edu Tue May 23 21:05:35 1995
Message-Id: <950523170302_9519930@aol.com>
From: N5EM@aol.com
Subject: Re: Hamsticks
Date: Tue, 23 May 1995 17:05:35 EDT

In a message dated 95-05-23 14:41:52 EDT, you write:

>Are they easy to assemble and adjust in the field? Will they eat half my
>5 W? Do they have SO239 connectors? Do I use 50 ohm coax? Can they be
>broken into two (fairly short) sections?

Al,

Adjustment is via a stinger in the top. You precut it to approximate freq. then trim
to get exact. The helically wound antenna is fairly efficient, but no more efficient
than any other short vertical. Probably better than a Hustler, worse than a large coil bug-catcher type (GLA Systems, etc.). They mount on a 3/8" x 24tpi
socket (antenna has a threaded base about 1 inch long. Any short antenna on 30 or 40 meters is a very low impedance and does not match 50 ohms. Lakeview Antennas, mfg. of the Hamstick sells a matching section that mounts under the Hamstick and is used to match the low impedance to a 50 ohm cable. This device is not expensive. Call Lakeview and order a catalog and read the description. Its very good. Unfortunately, for transport, they are 7 ft. long.

Since the stinger is mounted with a set screw in the top of the mast section, you
could take it out and store separately. Without the stinger, the base is about 5
ft. long. IF YOU ARE CAREFUL NOT TO LOSE THE SET SCREW, AND ARE CAREFUL TO MARK THE POSITION OF THE STINGER IN THE MAST, you could disasemble them. I can get it into my Plymouth Acclaim, but just barely.

I don't really know of a better mobile situation as far as transport in a car is
concerned. I use the 10 meter one on my car and its great, but then, its nearly a full quarter wave in length. Lakeview sells a mount for about $20 for
the trunk lip, as well as the Hamstick and lower band matching section. For the money, its a great buy. And, its light and strong enough to take quite a bit of abuse from trees and such. So, you can mount it high on the trunk deck, not on a bumper. That makes a considerable difference.

I'll be at Dallas Hamcom with mine on my car. I am sure there will be a bunch
of others there too.

73
Ed Manuel, N5EM
n5em@aol.com

From qrp-l@lehigh.edu Tue May 23 10:37:14 1995
Message-Id: <Pine.3.89.9505230652.A543507174-0100000@utkvx.utk.edu>
From: cebik@UTKVX.UTCC.UTK.EDU

Subject: Re: Header Info
Date: Tue, 23 May 1995 06:37:14 EDT

The header change seems to have been essential for some net members to identify the sender, although on PINE, "From" and "Reply to" are separate lines and the software asks if you want to use "reply to" instead of "From" and then asks if you want to distribute to all recipients. This covers the case of a reply to net, although it does send to copies to the sender. (Ver 3.89 and up at least) So the change is no problem for PINE, and if it helps other users ID the sender, then the change is for the better (greatest good for the greatest number). Since I cannot memorize all 340 net member addresses (as of 8:32 PM EDT last evening), I can memorize qrp-l@lehigh.edu (hope that is correct |-)>). There may be no perfect system for absolutely everyone (unless we all used one standard piece of software and connect system--and the debates on that would take a year), but I suspect the management is trying to zero the difficulties. Let's try it this way for a week or two and see whether it better serves more people than the former way. If so, we can vote to keep it; if not, we can vote for change (with an idea of what to chage to and a feasibility report if that change can be made). I can be middle of the road here, because either system works for me.

-73-
LB, W4RNL
on PINE via a big VAX

From qrp-l@lehigh.edu Tue May 23 14:01:09 1995
Message-Id: <Pine.HPP.3.90.950523085628.15581A-100000@fohnix.metronet.com>
From: Joe Spencer <jspencer@metronet.com>
Subject: Re: Header Info
Date: Tue, 23 May 1995 10:01:09 EDT

On Tue, 23 May 1995, H Smith wrote:

> On Mon, 22 May 1995, Jim Eshleman wrote:
>
> >
> > > Ed & Company,
> >
> >   We can certainly set the Reply-to: to the From: address. Because this is
> > a discussion list, I thought most people would want to reply to the list...
> >

> >   If there are no overwhelming objections, I'll go ahead and make the change.
> >
> > /jim
> >
>
> You asked for it.
>
> Yes, I object, the current format works very well for me (using PINE)
> when I am responding to the list (like this post).
>
> Anybody else?
>
> Henry Smith (hbs@crl.com)
>
>
>

I agree with Henry...this format is fine as is.

Joe Spencer KK5NA . .
jspencer@metronet.com
QRP   ARCI-8781   NORCAL-1179   NORTEX
Arlington, TX

From qrp-l@lehigh.edu Tue May 23 06:27:05 1995
Message-Id: <9505230626.AA10193@cybernetics.net>
From: ab4el@cybernetics.net (Stephen Modena)
Subject: Re: Header Info (fwd)
Date: Tue, 23 May 1995 02:27:05 EDT

> From: H Smith <hbs@crl.com>
> Subject: Re: Header Info
>
> On Mon, 22 May 1995, Jim Eshleman wrote:
> >
> >   We can certainly set the Reply-to: to the From: address. Because this is
> > a discussion list, I thought most people would want to reply to the list...
> >
> > If there are no overwhelming objections, I'll go ahead and make the change.
>
> Yes, I object, the current format works very well for me (using PINE)
> when I am responding to the list (like this post).
>

> Henry Smith (hbs@crl.com)

Go ahead and play with the headers...it will get you nowhere. :^)

We went through this several months back when BOATANCHORS moved from
mit.edu to theporch.com (running ListProc).

We specifically ran through all possible header settings and I tested them
against MAIL, ELM and PINE. These mailers (the main ones in use on
Unix systems) are *not* consistent inter alia in their "reply" behavior.
Who knows what Pegasus and others do.

I recommend a private query to Jack at ListOwn@jackatak.theporch.com
or Phil at root@theporch.com for a recommendation on how to set the
headers and *why* they went that route. :^)
--
73/Steve/AB4EL ab4el@Cybernetics.NET in Raleigh, NC 35.81245N, 78.65849W

From qrp-l@lehigh.edu Tue May 23 23:26:07 1995
Message-Id: <950523192438_10019390@aol.com>
From: JimN0OCT@aol.com
Subject: Hoot Owl Sprint...
Date: Tue, 23 May 1995 19:26:07 EDT

Hi all..

Is coming up this weekend, and I don't remember seeing any clarification on
the Bonus Points [HB?] question that was raised by Chuck K5FO. Not that it
makes a lot of difference for me, but I may try to run the 40-40 if HB gets a
few more points than the '509.

Hope to work you!

73, Jim N0OCT/UM [Underwater Mobile, as in "I live in STL and the basement is
wet!"]

jimn0oct@aol.com

From qrp-l@lehigh.edu Tue May 23 20:06:41 1995
Message-Id: <950523160528.20286808@carib.vf.mmc.com>

From: JEVERHART@cayman.vf.mmc.com
Subject: Re: HootOwl Coming Up Soon
Date: Tue, 23 May 1995 16:06:41 EDT

Cam,

A couple of weeks ago Chuck, K5FO printed info extracted from QQ aobut the HootOwl Sprint scheduled for this weekend. His info did not include info on bonus points - presumably for homebrew equipment. He volunteered you to list details on the bonus points! Would you please enlighten us/me?

Tks and 72/73,

Joe E. N2CX

From qrp-l@lehigh.edu Wed May 24 02:07:19 1995
Message-Id: <9505240200.AA06218@deneb.csustan.edu>
From: dh@deneb.csustan.edu (Doug Hendricks)
Subject: HW-9, 1 HW-8 sold
Date: Tue, 23 May 1995 22:07:19 EDT

The HW-9 has been sold to Bruce Florip. Duffy, of this list has bought the HW-8 in mint condition, ($150 one).
72, Doug
KI6DS

From qrp-l@lehigh.edu Wed May 24 03:13:41 1995
Message-Id: <Pine.3.89.9505232039.A12847-0100000@netcom4>
From: Alan Kaul <kaul@netcom.com>
Subject: Re: IQ130
Date: Tue, 23 May 1995 23:13:41 EDT

Chuck: I just read the fine print -- the part about our LAT-LONG. So here's mine: 118.2 (that's 2/tenths not minutes) West and 34.2 North. I'm also duping this to the list as a reminder to others to get the lat-long in to you. Are you planning to offer a database or some such, or should we all put the lat-long info in our exchange? You had mentioned a specific format log which had the distances between contact points------however, if we asked members to exchange lat-long data, we could all figure it out. Just a few days to go!!! If there's any changes, would you pls post clarifications to the rules?? Pls and tnx.

PS the SW-30 is a terrific little rig, got it working FB. Rcvr section
was hot last night -- could copy LZ, ZK, KH6, ZL and many K's and W's.
But it was a bit frustrating, 'cuz I wasn't able to work any of the DX.
Oh, well. Maybe after June 1ST!!

73/72 de Alan

[<Alan Kaul, W6RCL>] kaul@netcom.com

From qrp-l@lehigh.edu Tue May 23 22:48:21 1995
Message-Id: <2a6.25412.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)
Subject: RE: Jackson Bros. 6020 Re
Date: Tue, 23 May 1995 18:48:21 EDT

From: brian.carling@acenet.com

Someone writes anonymously:

QR>1619.AA16211@us4rmc.pko.dec.com>

QR>Yah, if anyone has a source for vernier drives, post to the list.
QR>Air-variable caps don't even compare to these things as far as
QR>availability. I've seen maybe 10 total at the fleas last couple of y=
ears,
QR>and one guy had 5-6 of the 10! Nice ones, too.

Check my large file MEGALIST.TXT (available everywhere) and you will
find several suppliers that offer these.

Brian Carling, AF4K
brian.carling@acenet.com

 =FE SLMR 2.1a =FE The Borg assimilated my race & all I got was this ta=
gline

From qrp-l@lehigh.edu Tue May 23 15:56:16 1995

Message-Id: <950523115342_9121218@aol.com>
From: JCoote@aol.com
Subject: Re: Jay's Class D final, proposed circuit
Date: Tue, 23 May 1995 11:56:16 EDT

(Jay here) Yes, I was interested in class D (CW) designs, with a 50/50 squarewave drive to a Hexfet PA, but my only experience with it was on the low frequency experimenter's band (160-190 kHz). On this band 1 watt DC input to the PA is allowed.

Many experimenters in this band used power FETs and square-wave RF drive for several reasons- getting the most efficiency out of a 1-watt DC input PA and simplicity of IC divide-by crystal oscillators such as the CD4060 chip. Many LF experimenters did not filter the squarewave drive to the 1-watt PA, and would only filter the PA output (typically with a 50-ohm pi).

With the 50-foot antenna rule, experimenters would put their transmitters at the base of their antennas. With a very short antenna on 160-190 Khz, the Q of the antenna tuning/matching circuit provided additional filtering.

I am not aware of anything written by LF experimenters on spectral purity on class D transmitters with 50/50 squarewave drive, and simple Pi filters. The signal from my transmitter on 187 kHz (after the pi filter; 50-ohm load) looked pretty clean on a 100 MHz scope though.

If we could feed an N-channel power FET with squarewave and filter the output enough for amateur service, it would give us a less power-hungry CW transmitter for battery/field use.   There may be some other advantages such as high input impedance for lighter coupling to the oscillator (less pulling), or fewer components?

Something to kick around at any rate.

72,   Jay
WB6AAM

From qrp-l@lehigh.edu Tue May 23 09:47:02 1995
Message-Id: <801190820.AA01930@hamlink.mn.org>
From: CLATON.CADMUS@hamlink.mn.org (CLATON CADMUS)
Subject: LADDER LINE COMMON SENSE
Date: Tue, 23 May 1995 05:47:02 EDT

John writes:

QR>What are the best solutions for lightning protection when using ladder line?

If you can find a DPDT knife switch for connecting the antenna to ground
when not in use that's about the best you can do. I found one at a
garage sale for a buck, and it's porcelain with copper contacts to boot!

As for all the spark plug advise, forget it unless you operate tube
finals. Solid state stuff would long be gone before the lightning would
jump the gap. The meg ohm resistors are a good idea and can be
incorporated in the switch. If you can keep the static drained, the
lightning won't hit the antenna. This is supposed to be the theory
behind lightning rods. I'd take this last part with a grain of salt.
One thing I know for sure about lightning, no one knows for sure what it
will do and where it will hit!

Hope this helps

73 de Claton Cadmus, KA0GKC


```
  ------------------------------------------------------------
 |     FIDOnet= Claton Cadmus 1:282./100                      |
 |    INTERnet= Claton.Cadmus@hamlink.mn.org                  |
 |   PACKETnet= KA0GKC@WB0GDB.#STP.MN.USA.NA                  |
  ------------------------------------------------------------
```


 * SLMR 2.1a * I'm insufficiently knowledgable on too many subjects.

---NoSnail v1.17
****
HAM>link< RBBS - Serving the Amateur Radio Community Since 1983

- 612/HAM-0000 v.34   Ham Radio Spoken Here!!
- 612/HAM-1010 v.32b   Reply to sender @ hamlink.mn.org
****

From qrp-l@lehigh.edu Tue May 23 09:48:13 1995
Message-Id: <801190820.AA01931@hamlink.mn.org>
From: CLATON.CADMUS@hamlink.mn.org (CLATON CADMUS)
Subject: LADDER LINE COMMON SENSE
Date: Tue, 23 May 1995 05:48:13 EDT

John writes:

QR>What are the best solutions for lightning protection when using ladder line?

If you can find a DPDT knife switch for connecting the antenna to ground when not in use that's about the best you can do. I found one at a garage sale for a buck, and it's porcelain with copper contacts to boot!

As for all the spark plug advise, forget it unless you operate tube finals. Solid state stuff would long be gone before the lightning would jump the gap. The meg ohm resistors are a good idea and can be incorporated in the switch. If you can keep the static drained, the lightning won't hit the antenna. This is supposed to be the theory behind lightning rods. I'd take this last part with a grain of salt. One thing I know for sure about lightning, no one knows for sure what it will do and where it will hit!

Hope this helps

73 de Claton Cadmus, KA0GKC


```
   ------------------------------------------------------------
  |     FIDOnet= Claton Cadmus 1:282./100                      |
  |    INTERnet= Claton.Cadmus@hamlink.mn.org                  |
  |   PACKETnet= KA0GKC@WB0GDB.#STP.MN.USA.NA                  |
   ------------------------------------------------------------
```


 * SLMR 2.1a * I'm insufficiently knowledgable on too many subjects.


```
---NoSnail v1.17
*********************************************************************
HAM>link< RBBS - Serving the Amateur Radio Community Since 1983

- 612/HAM-0000 v.34                 Ham Radio Spoken Here!!
- 612/HAM-1010 v.32b           Reply to sender @ hamlink.mn.org
*********************************************************************
```


From qrp-l@lehigh.edu Tue May 23 15:55:24 1995
Message-Id: <950523115339_9121205@aol.com>
From: JCoote@aol.com
Subject: Re: ladder line common sense
Date: Tue, 23 May 1995 11:55:24 EDT

What are the best methods of lightning protection in ladder lines?

What comes to mind immediately was something from an ARRL or other antenna book. The open-wire or ladder line terminated somewhere near a ground rod. This was a "spark-gap" lightning arrestor. I think it cut from a sheet of

brass or copper. The spark-gap piece was symmetrical in relation to the feeders. It fit between the feeders. The "spark-gap" was pointed in 45 degree angles on each end. Each point was equally close to one of the feeders. I cannot remember the dimension for the gap(s) though. A THICK copper wire connected from the center of the metal spark gap to the ground rod. I believe one illustration showed this system on the metal leg of a tower. The spark gap was held away from the tower by ceramic transmitting insulators.

The spark/lightning arrestor above probably might create a small impedance bump on open wire line, but it won't cause much harm... besides the system uses a tuner.

72, Jay
WB6AAM

From qrp-l@lehigh.edu Tue May 23 21:18:22 1995
Message-Id: <199505232117.QAA07849@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: MXM TXR-XX QRP XCVR Kit
Date: Tue, 23 May 1995 17:18:22 EDT

In the June 95 issue of CQ, that I mentioned yesterday, is a review of the MXM Single Band CW Transceiver for either 80, 40, 30, or 20 meters. This review is done by Doug DeMaw, W1FB/8. I won't go into the intricate details of the review, that is left as an exercise for the reader.

I have three of this little critters on 40, 30, and 20M. The receivers are the hottest ones that I have in the house that I know of. I have not taken the TenTec Corsair outta the box yet to compare.

Doug (if I may address him by his first name) gives a measured input sensitivity of 0.15 microvolts and has a "plainly audible signal in the earphones" with the IF gain set at midrange.

The case is the same one I have and I did the schematics for Bruce.

This kit sells for $130 + $5 shipping. You should have
experience in removing the capacitor from 5mm IF cans
and are very careful and methodical about building things.
This is a dual conversion receiver with IFs of 4 and
0.455 MHz. A frequency counter and a scope will go
a long ways to get perfect alignment and double check
your work. It is a very good rig but again I think
that having built another rig or two will go a long
ways in helping on this one.

The kit does not include power connectors/jack,
phone plugs, ant connector, key jack. These vary
from individual to individual in preference.

While on the topic, my favorites are:

    Phone Jack: 3.5mm Stereo
    Key Jack: RCA phono jack
    Antenna: SO-259 or BNC (I have more SO-259s)
    Power: 3.5mm barrel connector
    Knobs: Mouser

I'll try to get around to filling out the review sheet
on this rig as soon as I get some air time on 30M with
the MXM TXR-30. :-)

MXM Industries, Rt 1, Box 156C, Smithville, TX 78957
Bruce Williams, WA6IVC, owner. He was at Dayton in
the hospitality suite.

FYI
--
Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-l@lehigh.edu Tue May 23 20:02:44 1995
Message-Id: <n1410881272.68491@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: NE 602 series Gilbert cell mixers
Date: Tue, 23 May 1995 16:02:44 EDT

Checking parts sources, I note that Philips Semiconductors RF / Wireless
Communications Data Handbook lists a Gilber Cell Mixer: "NE/SA602A" which I
believe is the way the 602 mixer was known after the Philips-Signetics merger,
is it not? It sure makes it hard on newcomers, I now realize; because the
vendors are all changing names about time a part becomes a "standard"!

Thus in searching for these components, we should be asking for either the Signetics 602, or the Philips NE/SA602A mixer part, I believe.

There is also a NE/SA612A, can anyone comment if this is a drop in replacement?

It has the same pin out and higher frequency specs; thus might require more attention to bypassing, and good RF practice, but otherwise seems similar.

Thanks in advance for any help in this regard.

By the way, for anyone looking for the 602 as found in a number of QRP kits; you can probably get small quantities from any kit maker using that design. MXM Industries of Smithville TX, Bruce Williams, WA6IVC uses them as do others.

If no one on the list has an answer on the 612 question, I will call Bruce and see if he has tried it, as an alternate part in the Simple RX receiver, etc.

72, Stuart K5KVH
rohre@arlut.utexas.edu

From qrp-l@lehigh.edu Tue May 23 20:42:00 1995
Message-Id: <Pine.SUN.3.91.950523133601.4741A-100000@crl7.crl.com>
From: Steven Wilson <randyw@crl.com>
Subject: Re: NE 602 series Gilbert cell mixers
Date: Tue, 23 May 1995 16:42:00 EDT

I am using the 612's in a SuperRx and they work fine. On the 602's there are older ones without a "A" that have less gain than the newer ones on the market with the A. I used the 612's because they were cheaper even tho the spec was better.
de stan ak0b

From qrp-l@lehigh.edu Tue May 23 13:47:10 1995
Message-Id: <9505231401.AA01486@dtcs70.dtc.kodak.com>
From: mitchell@dtcs70.dtc.kodak.com (Brad Mitchel)
Subject: One Last Ten Tec question
Date: Tue, 23 May 1995 09:47:10 EDT

Did Ten Tec ever make a CW only superhet rx transceiver?
I saw the Century 22 at the Rochester , NY hamfest, but was

told that it's a D.C. receiver.   The seller said it was superhet??
73 Brad WB8YGG

From qrp-l@lehigh.edu Tue May 23 15:23:12 1995
Message-Id: <Pine.3.89.9505231156.A2484-0100000@saturn.acs.oakland.edu>
From: prvalko <prvalko@oakland.edu>
Subject: Re: One Last Ten Tec question
Date: Tue, 23 May 1995 11:23:12 EDT

On Tue, 23 May 1995, Brad Mitchel wrote:

> Did Ten Tec ever make a CW only superhet rx transceiver?
> I saw the Century 22 at the Rochester , NY hamfest, but was
> told that it's a D.C. receiver.   The seller said it was superhet??
> 73 Brad WB8YGG
>
The C22 is direct conversion. Ten Tec, to the best of my knowledge,
never made a superhet CW only rig.

73 =paul= wb8zjl

Collector of Ten Tecs and other fine plastics.

From qrp-l@lehigh.edu Tue May 23 20:47:52 1995
Message-Id: <199505232046.PAA07784@chuck.dallas.sgi.com>
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: Pixie 2
Date: Tue, 23 May 1995 16:47:52 EDT

Gang,

If you remember, at the Dayton Hamvention there was a building
contest. This was on Saturday night after the QRP ARCI banquet.

The name of the little rig was the Pixie 2.

On FTP.LEHIGH.EDU in pub/listserv/qrp-l/rigs there are two
files --- pixie2.ps.Z and pixie2.txt.Z. The first is the
PostScript Schematic of the rig and the second is the contest

instructions (with slight mods) as handed out at Dayton in ASCII.

The only things missing are the PC Board and the parts layout diagram. If I get time or someone else does it, we will see about getting those too, but it's not critical to the exercise at this time. If you are in a hurry, there is an address and phone number to order the kit for $11.95 total US Dollars from California.

OK, to remind everyone. If you ftp to ftp.lehigh.edu and cd to the directory then get pixie2.ps and pixie2.txt you will get the uncompressed files. If you ftp to ftp.lehigh.edu and cd to the directory and get pixie2.ps.Z and pixie2.txt.Z you will get the files in compressed format.

There are some on this list who have subscribed and then do not read their mail and their mailboxes are full. You will be removed from the list if the problem is not corrected. Please do not add to the overhead of this group and the load that we don't need. Please, pretty please.

FYI: The PostScript schematics were created by my own C program and I hope you like the format. It's the same program which produced the NN1G schematics, also in the rigs directory. I have double checked the schematic and I believe it to be correct. You will let me know I'm sure.

dit dit
--
Chuck Adams K5FO CP-60 adams@sgi.com

From qrp-l@lehigh.edu Tue May 23 22:01:47 1995
Message-Id: <Pine.SUN.3.91.950523145409.3518B-100000@crl2.crl.com>
From: Steven Wilson <randyw@crl.com>
Subject: Re: Pixie 2
Date: Tue, 23 May 1995 18:01:47 EDT

Hi Chuck, we need to add ghostscript to the qrp-l files so there is a easy (cheap) way to view PS files.

The files required are gs261286.zip and gs261ini.zip for a 286 machine
gs261386.zip and gs261ini.zip for a 386 machine

Maybe one of the UNIX types on the list can get them from the GNU area and post to the qrp-l ftp area.

de stan ak0b

From qrp-l@lehigh.edu Wed May 24 03:21:26 1995
Message-Id: <950523123122024@sescva.esc.edu>
From: pcalcand@sescva.esc.edu (PETER CALCANDY)
Subject: Q R P WEEKEND, JUNE 2 - JUNE 4
Date: Tue, 23 May 1995 23:21:26 EDT

Just a reminder... The Long Island Mobile Amateur Radio Club's Jr. Ops.
will be up in Haines Falls New York on their bi-annual camping weekend.
The Jr. Ops will be operating N2LSK from their campsite in the Catskill
Mtns. Operation will be on 7.040, 14.060 and 3.560 CW and 7.225 SSB.
For a QSL, send an sase to Mr. Jix, Rob Todaro, N2JIX, 2218 East 73rd St,
Brooklyn, NY 11234.
For many of the Jr. Ops, this camping weekend is their first experience
operating on the low bands and running QRP. If you have a few minutes,
why not look for the young nippers and give them a thrill. Mention the
qrp-l group and pick up a gold star! They plan on being on the air
Friday evening (EST), all day Saturday and Sunday morning.
Any questions, please contact me here at Pcalcand@sescva.esc.edu
Thanks
Peter N2KPY
pcalcand@sescva.esc.edu

From qrp-l@lehigh.edu Tue May 23 15:55:59 1995
Message-Id: <950523115349_9121285@aol.com>
From: JCoote@aol.com
Subject: Re: QRP via Russian HF satellite
Date: Tue, 23 May 1995 11:55:59 EDT

Hi all...

Though I don't have the xmit equipment, I have monitored the downlink CW
beacons of the RS-series satellites in the 10 m band.

It helps a lot to find a good satellite tracking program for your computer.
 Why? These LEO satellites may only be copied for 10-15 minutes and you'll
be spending a lot of time tuning around. (A transceiver with memories helps
here). WinOrb is one such program.

Your satellite tracking program should show you where the satellite is on a map. It should allow you to input ORBITAL ELEMENTS sometimes called KEPS in the form of a text file. Satellite orbits decay and new satellites are added, so it is necessary to update your KEPS. The program should feature a map, choices of map projection, and hold 100's of satellite KEPS in the database. KEP files come in two formats, AMSAT and NASA. Good tracking programs will input either.

Where do I find keps? I hope you have packet, though there may be an AMSAT or NASA source on Internet. There is a wealth of information under the heading AMSAT on packet. To find KEPS on your local packet BBS, try typing L> AMSAT. Save the latest AMSAT bulletin with the KEPS and input it to your tracking program.

It is very worthwhile to see your favorite satellite(s) tracking on the screen and then hear the signal peak up when the satellite's footprint overlaps your QTH on the map.

You don't need packet and tracking software to enjoy monitoring and using satellites, and it's an interesting lesson in propagation just to hear the CW beacons... line of sight QRP over 1000's of miles.

72, Jay
WB6AAM

From qrp-l@lehigh.edu Tue May 23 16:14:59 1995
Message-Id: <01HQU9R2WXXUQPFNDO@tntech.edu>
From: Jeff Gold <JMG@tntech.edu>
Subject: qrp+
Date: Tue, 23 May 1995 12:14:59 EDT

Anyone actual have the qrp+ from the group purchase arrive at
their house?

73

Jeff, AC4HF

From qrp-l@lehigh.edu Tue May 23 22:49:34 1995
Message-Id: <2a6.25415.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)

Subject: RECIPIENTS function
Date: Tue, 23 May 1995 18:49:34 EDT

From: brian.carling@acenet.com

RECIPIENTS QRP-L

 =FE SLMR 2.1a =FE "Tennis is irrelevant." - Bjorn Borg

From qrp-l@lehigh.edu Tue May 23 22:48:00 1995
Message-Id: <2a6.25413.500@acenet.com>
From: brian.carling@acenet.com (Brian Carling)
Subject: reply address in message
Date: Tue, 23 May 1995 18:48:00 EDT

From: brian.carling@acenet.com

But a lot of providers do not show all of these lines.
He is right this IS a problem with the new list provider.
PLEASE, everyone include your name in the text of your message
and also your E-mail address. Thanks & 72 de AF4K
brian.carling@acenet.com

QR>07924@radium.Eng.Sun.COM>

QR>> From qrp-l@lehigh.edu Mon May 22 11:22:04 1995
QR>> Reply-To: qrp-l@lehigh.edu
QR>> Originator: qrp-l@lehigh.edu
QR>> Sender: qrp-l@lehigh.edu
QR>> From: "Jim Larsen" <jlarsen@alascom.com>
QR>> To: Multiple recipients of list <qrp-l@lehigh.edu>
QR>> Subject: Re[2]: ladder line common sense
QR>> X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsi=
konas
QR>> X-Comment: Low Power Amateur Radio Discussion
QR>> Date: Mon, 22 May 1995 14:19:35 EDT
QR>> Content-Length: 513
QR>>
QR>> This new listserv does not pass on the email address of the sender=
..This is
QR>not
QR>   ^^^

QR>> Is there a way to fix this?
QR>>
QR>> The author needs to be K7SII, not qrp-l.
QR>>
QR>> WATSA?
QR>>
QR>>

QR>Yes it does. Note line 5 in the header of the message above. Not the
QR>most elegant way to include it, as the "REPLY" function on your
QR>mailtool won't pick it up, but it is there.

QR>72 de WB6TPU Ray

QR>wb6tpu@radium.eng.sun.com

 =FE SLMR 2.1a =FE Captain, why not just give the Borg Windows 3.1? - W=
orf

From qrp-l@lehigh.edu Tue May 23 16:22:57 1995
Message-Id: <9504238012.AA801242430@mailrouter.alascom.com>
From: "Jim Larsen" <jlarsen@alascom.com>
Subject: Re[2]: Header Info
Date: Tue, 23 May 1995 12:22:57 EDT

Hi Henry,

Without the changes yesterday or you putting your address at the end of your message, I would not be able to respond to you on anything. I am glad to have a filter on "auto-respond" to the net as a whole because there are almost too many messages now. If it is important enough, qrp-l can be typed in. If the sender id does not show, I cannot respond at all except as a blast of bandwidth.

Hmmmm, I think I will send this to the list, also.

So there is one more strong opinion. I really really like yesterday's change.

73,

Jim Larsen
AL7FS
jlarsen@alascom.com
_____________________Reply Header_____________________

Author: hbs@crl.com
Subject: Re: Header Info
05-22-95 08:10 PM

On Mon, 22 May 1995, Jim Eshleman wrote:

>
> Ed & Company,
>
>   We can certainly set the Reply-to: to the From: address. Because this is
> a discussion list, I thought most people would want to reply to the list...
>
>   If there are no overwhelming objections, I'll go ahead and make the change.
>
> /jim
>

You asked for it.

Yes, I object, the current format works very well for me (using PINE)
when I am responding to the list (like this post).

Anybody else?

Henry Smith (hbs@crl.com)

From qrp-l@lehigh.edu Tue May 23 18:21:52 1995
Message-Id: <n1410887300.8015@msmailgw1.arlut.utexas.edu>
From: "rohre" <rohre@arlut.utexas.edu>
Subject: Source for Keplerian elements: inet
Date: Tue, 23 May 1995 14:21:52 EDT

Jay spoke of the orbital predictions, or keps needed for satellite qrp ops.

These are among the ARRL bulletins, and DX predictions that are available from subscription to W1AW-list which is Netcom.com list service from Boston Amateur Radio Club.   Send email to listserv@netcom.com. In the body of the message, say "subscribe W1AW-list". The Keplerian elements as the satellite data is titled, is put out about once a week on the major satellites. The format is a shorthand standard used by the Amsat hams, and perhaps someone with more knowledge of this can give us a short overview.

72, Stuart K5KVH
rohre@arlut.utexas.edu

From qrp-l@lehigh.edu Tue May 23 15:46:09 1995
Message-Id: <9505231550.AA08432@asp.vet.purdue.edu>
From: bfinch@asp.vet.purdue.edu (Robert Finch)
Subject: sources for lightning protection info
Date: Tue, 23 May 1995 11:46:09 EDT

yaall can read up on the real skinny abt.
natures light show protection in abook by

Roger Brock called
The "Grounds" for Lightning and EMP Protection
published and sold by PolyPhaser Corp.
2225 Park Place, POBox 9000, Minden,NV
89423-9000

they also sell a line of stuff that is much more
advanced than the air gaps that are so popular..

ALSO ask to be put on their mailing list for the
'Striking News' newsletter (catchy title..hey?)
...the back issues from last year are very gud
material...

FINALLY if u want to look into the competition
who DOES make and sell a balanced version of
a VERY similar device, the check out
Industrial Communications Engineers, LTD.
in Indianapolis...800-423-2666

they are in the same business but also sell
a line of filters and strike measuring equiptment
(i'm led to believe they are rabid hf contesters
as well...hi)

I DO NOT WORK FOR ANY OF THESE COMPANIES.

ttfn...baab,n6cxb
bfinch@asp.vet.purdue.edu

p.s. the answer to where and how a strike occurs, and
where does the energy go during and after a strike IS

KNOWN.....what isn't know is what goes on
during intervals before the onslaught of the events
which form and start the strike...as well as some
arcane aspects of this subject...
SO what does a strike do?...it goes the path of
least resistance (or more precisely impedence!)

From qrp-l@lehigh.edu Tue May 23 16:13:53 1995
Message-Id: <9504238012.AA801241891@mailrouter.alascom.com>
From: "Jim Larsen" <jlarsen@alascom.com>
Subject: Thank you for change
Date: Tue, 23 May 1995 12:13:53 EDT

With the change yesterday, I can now see who sent the message and respond to them and/or to qrp-l as needed. Previously, the sender was totally (!) hidden from me. I could only see qrp-l as the sender.

I strongly like the change.

Thank you.

73,

Jim Larsen
AL7FS
Anchorage, Alaska
jlarsen@alascom.com